

# Culminating Project: Applying Knowledge

CLASSES CHOOSE ONE PROJECT



## 📍📍 Student Exhibitions - page 2

📍📍 (facilitated by park staff and classroom teacher)

- ▶ Individuals or small groups of students create exhibitions illustrating an aspect of their experience in the program.
- ▶ Students give presentations for NPS staff, other students, and teachers.
- ▶ NPS staff award participation certificates to students.
- ▶ Students learn about summer internships and job opportunities in local parks and environmental organizations.
- ▶ Students display their exhibitions in their schools, in park visitor centers, on the National Park Labs web site, at restoration fairs, and/or at community centers.

or

## 📍📍 Neighborhood Restoration - page 4

📍📍 (facilitated by park staff and/or a cooperating community agency)

- ▶ Students apply concepts learned during the program while participating in a restoration or beautification project in their school or a local park.
- ▶ NPS staff award participation certificates to students.
- ▶ Students learn about summer internships and job opportunities in local parks and environmental organizations.

# Standards

## Culminating Project

### **SFUSD Science Content Standard 14: Interdependence**

Students understand that the maintenance of ecosystems depends upon biotic and abiotic factors, including the effects of water, nitrogen and carbon cycles on the system.

- ▶ *Performance Standard:* Students should be able to discuss the positive effects that their intervention has had on the ecosystem of their restoration area (based on SFUSD Performance Standard 14.3).

### **National Life Skills Standard: Working with Others**

Students demonstrate leadership skills by celebrating accomplishments and recognizing the contributions of others.

- ▶ *Performance Standard:* Students should be able to celebrate the restoration work they have accomplished during the program, as well as recognize the contributions that their classmates and others have made to restoration efforts.

### **National Life Skills Standard: Life Work**

Students make general preparations for entering the work force by understanding occupational apprenticeships and other training opportunities.

- ▶ *Performance Standard:* Students should be able to describe several available environmental internships. Students should be able to describe how the skills they gained during National Park Labs can help them pursue an environmental career.

# Culminating Activity

## Option I: Student Exhibitions

### SUMMARY

Whether classes choose the student exhibitions or the neighborhood restoration project, the culminating activity is an opportunity to reflect on the concepts learned during the program and celebrate the students' contributions to habitat restoration. Students learn how they can continue working for the health of the environment through paid and unpaid internships offered by the National Park Service and other agencies.

### TIME

Part 1: Two 50-minute class periods plus 30 minutes for preparation

Part 2: One 50-minute class period plus 90 minutes for preparation

### MATERIALS

- Sample exhibits from previous years
- New or recycled materials to create exhibitions
- Reference material such as plant information cards, nursery handbook, textbooks, curriculum guide
- Scissors, straight-edge, colored pencils, pens, etc.
- Notes and assignments from National Park Labs activities
- Digital pictures of students participating in National Park Labs activities
- Internship announcements
- Certificates

## **Program** (facilitated by NPS staff and teacher)

### **Part I, Day I** (facilitated by teacher)

5 minutes

Teacher congratulates students on accomplishing a great deal of vital restoration work. In order to share the knowledge they have gained during their restoration project, students will make an exhibition covering a specific aspect of what they learned. Exhibitions will be displayed in their school, at park visitor centers, on the National Park Labs web site, at restoration fairs, and/or at community centers.

10 minutes

Students refer to the journal questions they formulated during the National Park Labs lessons. Have any of these questions been answered? Students now formulate five new questions about any aspect of the program. The teacher helps the students determine which of these questions would be good topics for exhibitions.

10 minutes

The teacher divides students into small teams to create the exhibitions. (Some students may elect to work independently but should still complete a comprehensive exhibition.) Each group meets for a short time and decides on a topic for their display. The teacher approves the topics before students are allowed to proceed.

25 minutes

Each group sketches a plan for their exhibition and divides the work among the group members. The teacher approves the plan before students begin work on the actual exhibitions.

**Part 1, Day 2** (facilitated by teacher)

50 minutes

Students work in their teams to complete their exhibitions.

**Part 2:**

**Creating Exhibitions** (facilitated by NPS staff)

5 minutes

Park staff greet the class, congratulate the students, and thank them for their hard work during the program.

30 minutes

Students present exhibitions.

5 minutes

Staff give certificates to each student and the teacher.

10 minutes

Students learn about summer internship opportunities and enjoy refreshments.

# Culminating Activity

## Option 2: Neighborhood Restoration Project

### SUMMARY

Whether classes choose the student exhibitions or the neighborhood restoration project, the culminating activity is an opportunity to reflect on the concepts learned during the program and celebrate the students' contributions to habitat restoration. Students learn how they can continue working for the health of the environment through paid and unpaid internships offered by the National Park Service and other agencies.

### TIME

2 hours

90 minutes for preparation

### MATERIALS

- Internship announcements
- Certificates

### **Program** (facilitated by NPS staff and/or a cooperating agency)

#### **Preparation - 90 minutes**

Park staff arrange with a local agency (SF Recreation and Park Department, SLUG, etc.) for the class to work on a restoration or beautification project at an area near their school. The class may do a project on their school grounds.

#### **Students, teacher and staff meet at the chosen project site.**

#### **Welcome - 10 minutes**

Park staff or cooperating agency staff welcome students to the site, introduce the project, and explain the work procedure.

#### **Project - 80 minutes**

The class works on the project. During the work, park staff help the students make intellectual connections between today's project and the restoration project the students completed in Golden Gate National Recreation Area.

**Discussion - 10 minutes**

When the work is complete, students discuss the similarities and differences between this work and what was done in Golden Gate National Recreation Area. Which project is more important? Who are the stakeholders in each project? Who has access to which open spaces? Park staff ask the students to recall the “Case of the Vacant Lot” scenario. What other options might have been proposed for this open space?

**Reflection - 10 minutes**

Students refer to the journal questions that they formulated during the National Park Labs lessons. Have any of these questions been answered? How have the students’ views changed during the program? Park staff help the students understand that learning is a lifelong process, and often, questions lead not only to answers but to more questions. Students now formulate five new questions they have about any aspect of the program.

**Conclusion - 10 minutes**

Park staff give certificates to each student and the teacher. Students learn about summer internship opportunities and enjoy refreshments.